Date: June 2008

General Information

County:ShastaRoute 5Segment #:005SHA012Length Miles:0.9LocationTehama/Shasta County Line to Gas Point RoadDirectional:No

PM Limit R0.00 / R0.9 **Exit #'s:** 664

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Not Permitted; Alternate Route

Available.

Facility Concept

Present: Four-lane freeway
Twenty-Year: Six-lane freeway
Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 70-80 mph

Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

78-84 ft

C/D

Current Highway Information

Peak Hour Factor: 0.92 Climbing Lane (s): No

Number of Lanes: 4

Lane Width: 12 ft Terrain: Level 2 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 15% 70 mph Posted Speed: Percent RVs: 2% Median Barrier: Yes

K factor: 0.10 Median Width: Interchange Density: 0.5

Interchange Density: 0.5

Median Type: Unpaved; Separate

Directional Split: 57% (North pm) Structures

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	42000	4200	19.9	С	
2010	52000	5200	25.2	С	
2015	60000	6000	31.8	D	
2020	68000	6800	39.2	Е	С
2025	76000	7600	>45	F	С
2030	84000	8400	>45	F	D

¹Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This freeway segment begins at the Tehama/Shasta County line on the Cottonwood Creek Bridge and ends at Gas Point Road Interchange. There is one rural interchange at Gas Point Road. The segment runs through southern Shasta County and the community of Cottonwood. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 14% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and two-foot inside shoulders. Three structures exist in this segment. The median is mostly unpaved (dirt) median.

Parallel or Connecting Routes

Significant Land Uses

Land uses currently in this segment include freeway commercial surrounding the Gas Point Road Interchange with gas stations and restaurants. There is also retail, single and multi-family residential, general commercial, and agricultural. The cumulative effect for the residential projects in the community of Cottonwood has lead to significant traffic growth. This growth is expected to continue.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2015. Expand freeway to six lanes. Reconstruct Gas Point Interchange. Improve traffic operations through ITS.

General Issues

The Sacramento River runs parallel to the segment. Structures shoulders and inside shoulders do not meet current standard for shoulder width. To address impacts from ongoing development, a traffic impact fee program was adopted for the Gas Point Road area. The fee program includes improvements at two interchanges (Gas Point Road and Main Street).





Segment 12 Tehama County Shasta County PM R0.0/R0.9



I-5 Project Sheet Segment 12-Tehama/Shasta County Line to Gas Point Road (Shasta PM R0.00/R0.91)

Segment Projects/Improvements									
Name	Туре	Location	Year	Program	Cost	Sponsor			
Completed									
<u>In-Progress</u>									

Future

Expand TMS	Transportation Management Systems	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans					
Enhance traffic operations th	Enhance traffic operations through ITS-Various locations.										
Expansion	Capacity	SHA R0.00/R0.91	TBD	TBD	See Figure 3 pages 44-45	TBD					
Expand freeway to six lanes											
				•							
	·			·							

Date: June 2008

General Information

County:ShastaRoute 5Segment #: 005SHA013Length Miles: 3.4LocationGas Point Road to Deschutes Road UndercrossingDirectional: No

PM Limit R0.9 / R4.3 **Exit #'s:** 664, 665, 667

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Not Permitted to PM 1.91 with

Alternative Route Available; Allowed rest of segment.

Facility Concept

Present: Four-lane freeway
Twenty-Year: Six-lane freeway
Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 70-80 mph

Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.92 Climbing Lane (s): No

Number of Lanes: 4

Lane Width: 12 ft Terrain: Rolling 2 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 14% 70 mph Posted Speed: Percent RVs: 2% Median Barrier: Yes

K factor: 0.10

Interchange Density: 0.5

Directional Split: 57% (North pm)

Median Width: 60-84 ft

Median Type: Unpaved; Separate

Structures

Year	AADT	Peak Hour	Density	LOS	Improved LOS
2005	52000	5200	29.9	D	
2010	63000	6300	22.3	C ¹	
2015	71000	7100	25.8	C ¹	
2020	81000	8100	31.5	D ¹	
2025	87000	8700	34.8	D^1	
2030	94000	9400	43.3	E ¹	

¹Post 2010 reflects completion of Cottonwood Hills Climbing Lane Project funded in the Corridor Mobility Improvement Account. Project will expand freeway to six lanes. See "Segment Improvements" and "Project Sheets" on following pages.

This Description Description and of

Segment Description

This freeway segment begins at Gas Point Road Interchange and ends at Deschutes Road Undercrossing. There is one urbanized undercrossing at Deschutes Road. The segment runs through the community of Cottonwood and ends as the City of Anderson's southern boundary. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 12% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and two-foot inside shoulders. Four structures exist in this segment. The median is mostly unpaved (dirt) median.

Parallel or Connecting Routes SR 273 and Deschutes Road

Significant Land Uses

Land uses currently in this segment include multi- and single-family residential, general commercial, and agricultural. Large retail centers exist near the Deschutes Road Undercrossing, including shopping outlets, a large retail store with a shopping center, an RV sales lot, and a truck sales retailer. The cumulative effect for the residential projects in the community of Cottonwood has lead to significant traffic growth. This growth is expected to continue. This segment was once traditional agricultural and rural residential areas, but now are experiencing residential and general commercial development pressure. Future proposed land uses include: multi- and single-family residential subdivisions, 80-acre horse ranch, and general commercial developments. The potential for traffic growth is significant.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Exceeds Concept LOS (C/D threshold) in 2005. Segment will be expanded to six lanes in 2011 (Cottonwood Hills Truck Climbing Lanes Project). Reconstruct Deschutes Road Interchange. Improve traffic operations through ITS.

General Issues

Cottonwood Hill uphill northbound grade impacts truck travel speeds. Structures shoulders and inside shoulders do not meet current standard for shoulder width.





Segment 13 Shasta County PM R0.9/R4.3



Project Sheet Segment 13-Gas Point Road to Deschutes Road (Shasta PM R0.91/R4.3)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						

In-Progress

Cottonwood Hills Truck	Mobility Improvements	SHA R1.2/R4.2	2010	CMIA/STIP	\$23,100,000	Caltrans/Shasta				
Climbing Lane						RTPA				
On I-5 in Shasta County, just north of Gas Point Road Interchange to Deschutes Road Interchange, this project adds northbound and southbound truck										
climbing lanes. Traffic is subj	climbing lanes. Traffic is subject to a mile-long upgrade of 2.5% to 2.9% in each direction at the Cottonwood Hill location. Freeway onramp grades are even									
steeper at 4.6%. With 27% of the traffic being trucks or recreational vehicles, congestion is occurring due to the slower moving vehicles. A southbound truck										
climbing lane will be construc	climbing lane will be constructed from Deschutes Interchange south to the North Cottonwood Main Interchange. A northbound truck climbing lane will be									
constructed from just south of the North Cottonwood Main Interchange north to the SR 273 Interchange.										
North Cottonwood,	Bridge Seismic Restoration	SHA R1.9, R30.6, &	2011	SHOPP	\$10,600,000	Caltrans				
Sweetbriar, and Tunnel		R60.8								
Gulch Viaduct										
SHA 5 seismic strengthening										

Future

us locations.	orridor HA R4.2/R8.5 & 12.1/16.2	2009	SHOPP	\$4,700,000	Caltrans
SI		2009	SHOPP	\$4,700,000	Caltrana
_		2009	SHOPP	\$4,700,000	Caltrana
•				' '	Califalis
SI	HA R0.91/R1.2	TBD	TBD	See Figure 3 pages 44-45	TBD
-					

Date: June 2008

General Information

County: Shasta Route 5 **Segment #:** 005SHA014 Length Miles: 2.4 Location Deschutes Road Undercrossing to Riverside Avenue Directional: Nο

PM Limit R4.3 / R6.7 **Exit #'s:** 667, 668, 670

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network). High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Not Permitted; Alternate Route **Bicycle Status:**

Available.

Facility Concept

Present: Four-lane freeway Twenty-Year: Six-lane freeway Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 70-80 mph

Clear Recovery: 30 ft

6 lane. 12-ft lane width; 10-ft **Typical Section:**

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: Climbing Lane (s): No 0.95

4 Number of Lanes:

Lane Width: 12 ft Terrain: Level 2 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 17% 70 mph Posted Speed: Percent RVs: 2% Median Barrier: Yes

K factor: 0.09 Median Width: 60 ft

Interchange Density: 0.5 Median Type: Unpaved; Separate

Directional Split: 54% (North am) Structures

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	50000	4500	19.8	С	
2010	60000	5400	24.1	С	
2015	68000	6100	28.3	D	
2020	81000	7300	38.6	Е	С
2025	89000	8000	>45	F	С
2030	93000	8400	>45	F	С

Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.

Segment Description



This freeway segment begins at Deschutes Road Interchange and ends at Riverside Avenue. There are two urbanized interchanges at Balls Ferry/North Street and Riverside Avenue. The segment passes through the City of Anderson. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 13% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and two-foot inside shoulders. Nine structures exist in this segment. The median is mostly unpaved (dirt) median.

Parallel or Connecting Routes SR 273 and Deschutes Road

Significant Land Uses

Land uses currently in this segment consist of freeway commercial and retail at Balls Ferry/North Street. There is also multi- and single-family residential, general commercial, and agriculture. To the east and west, there is the City of Anderson limits with additional housing and services. To the east, there is a hotel resort (120-unit), restaurant, and conference center containing 120 units that you can access of Riverside Avenue or North Street. Future traffic growth is expected to continue with additional residential housing and general commercial being developed in this segment.

Traffic Projections

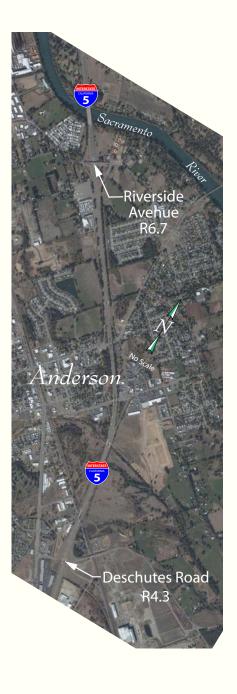
Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Expand freeway to six lanes. Reconstruct Riverside Avenue Interchange. Improve traffic operations through ITS.

General Issues

Structures shoulders and inside shoulders do not meet current standard for shoulder width.





Segment 14 Shasta County PM R4.3/R6.7



I-5 Project Sheet Segment 14-Deschutes Road to Riverside Avenue (Shasta PM R4.3/R6.7)

Segment Projects/Improvements								
Name	Туре	Location	Year	Program	Cost	Sponsor		
Completed								
Sacramento River Bridges	Bridge Restoration	SHA R6.4/R7.6	2001	SHOPP	\$17,450,000	Caltrans		
Replace bridge (scour).								
n-Progress								
ir i rogicoo								
	l	·		ı				

Future

Expand TMS	Transportation Management Systems	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
Enhance traffic operations	through ITS-Various locations.					
Cable Median Barrier	Safety	SHA R4.2/R8.5 & R12.1/16.2	2009	SHOPP	\$4,700,000	Caltrans
Install cable median barrie	r.	•		•	•	•
Expansion	Capacity	SHA R4.3/R6.7	TBD	TBD	See Figure 3 pages 44-45	TBD
Expand freeway to six lane	es.		•	•		•

Date: June 2008

General Information

Route 5 County: Shasta **Segment #:** 005SHA015 Length Miles: 3.1 Location Riverside Avenue to Knighton Road Directional: Nο

PM Limit R6.7 / R9.8 **Exit #'s:** 670, 673

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network). High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Not Permitted; Alternate Route **Bicycle Status:**

Available.

Facility Concept

Present: Four-lane freeway Twenty-Year: Six-lane freeway Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 70-80 mph

Clear Recovery: 30 ft

6 lane. 12-ft lane width; 10-ft **Typical Section:**

inside shoulder; 10-ft outside

shoulder

Concept LOS

60 ft

C/D

Current Highway Information

Peak Hour Factor: Climbing Lane (s): No 0.95

4 Number of Lanes:

Lane Width: 12 ft Terrain: Level 2 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 12% 70 mph Posted Speed: Percent RVs: 1% Median Barrier: Yes

K factor: 0.09 Median Width:

Interchange Density: 0.5 Median Type: Unpaved; Separate

Directional Split:

56% (South pm) Structures

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	52000	4700	20.8	С	
2010	61000	5500	24.9	С	
2015	69000	6200	29.4	D	
2020	78000	7000	36.4	Е	С
2025	86000	7700	40.0	F	С
2030	90000	8100	>45	F	С

Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.

Segment Description



This freeway segment begins at Riverside Avenue Interchange and ends at Knighton Road Interchange. There is one urbanized interchange at Knighton Road. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 9% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and two-foot inside shoulders. Three structures exist in this segment. The median is mostly unpaved (dirt) median.

Parallel or Connecting Routes SR 273, Deschutes Road and Airport Road

Significant Land Uses

This segment's land uses contain multi- and single-family residential and agricultural. Many of the the homes are on rural lots of five acres or more. To the east, there is a major truck stop facility at Knighton Road. A few miles to the east, there is Stillwater Buisness Park. This park has 700 acres suited for industrial and office buildings. The lots are "ready to go," but have no current occupants. To the west, there are numerous mobile home parks an an RV resort. This road provides access to the Redding Municipal Airport and industrial businesses. Agricultural is prime near the Sacramento River. Traditional agricultural areas in this segment are experiencing residential, general commercial, industrial, and retail development pressure at the Knighton Road Interchange. The potential for the increase in traffic is significant.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2015. Expand freeway to six lanes. Improve traffic operations through ITS.

General Issues

The Sacramento River runs parallel to the segment. Major truck stop facility at Knighton Road. Significant access to Redding Municipal Airport and Stillwater Business Park off of Knighton Road. Several structures do not meet current standards for shoulder width.





Segment 15 Shasta County PM R6.7/R9.8



I-5 Project Sheet Segment 15-Riverside Avenue to Knighton Road (Shasta PM R6.7/R9.8)

Segment Projects/Improvements

Completed

Sacramento River Bridges	Bridge Restoration	SHA R6.4/R7.6	2001	SHOPP	\$17,450,000	Caltrans
Replace bridge (scour).						

In-Progress

Cable Median Barrier	Safety	SHA R4.2/R8.5 & R12.1/16.2	2009	SHOPP	\$4,642,000	Caltrans	
Install cable median barrier.							

Future

Expand TMS	Transportation Management Systems	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans			
Enhance traffic operations	Enhance traffic operations through ITS-Various locations.								
Expansion	Capacity	SHA R6.7/R9.8	TBD	TBD	See Figure 3 pages 44-45	TBD			
Expand freeway to six lane	S.								
	·								

Date: June 2008

General Information

County:ShastaRoute 5Segment #:005SHA016Length Miles:2.4LocationKnighton Road to South Bonnyview RoadDirectional:No

PM Limit R9.8 / R12.2 **Exit #'s:** 673, 675

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Not Permitted; Alternate Route

Available.

Facility Concept

Present: Four-lane freeway
Twenty-Year: Six-lane freeway
Long Range: Eight-lane freeway

g Kange: Eight-iane freeway

Future Design Concept

Design Speed: 55-80 mph
Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.95 Climbing Lane (s): No

Number of Lanes: 4

Lane Width: 12 ft Terrain: Level 2 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 12% 70 mph Posted Speed: Percent RVs: 1% Median Barrier: Yes

K factor: 0.09 Median Width: 84 ft lnterchange Density: 0.5

Interchange Density: 0.5

Median Type: Unpaved

Directional Split: 56% (South pm)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	55000	5000	22.4	С	
2010	65000	5900	26.7	D	
2015	73000	6600	31.1	D	С
2020	82000	7400	37.9	Е	С
2025	89000	8000	>45	F	С
2030	92000	8300	>45	F	С

¹Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This freeway segment begins at Knighton Road Interchange and ends at South Bonnyview Road Interchange. There is one urbanized interchange at South Bonnyview Road. This segment is inside the city of Redding limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 11% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and two-foot inside shoulders. Three structures exist in this segment. The median is mostly unpaved (dirt) median.

Parallel or Connecting Routes SR 273, Deschutes Road, Airport Road, Churn Creek Road, and Bechelli Lane

Significant Land Uses

Land uses in this segment include freeway commercial with restaurant establishments, retail, and gas stations. A few hotels exist in this segment. There is also valley floor agricultural (prime areas near Sacramento River), open space/greenbelt, general commercial, industrial, and multi- and single-family residential. Some of the residential is on rural small lots. The potential for growth is significant with proposed residential, general commercial, and industrial.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Expand freeway to six lanes. Reconstruct South Bonnyview Interchange. Improve traffic operations through ITS.

General Issues

Traffic in this urban center of the City of Redding is significant. South Bonnyview Interchange provides a key link to SR 273. Churn Creek Road provides a key link to other local routes. Structures shoulders and inside shoulders do not meet current standard for shoulder width. The Sacramento River runs parallel to the segment. Smith Road Overcrossing (06-0138L/R) has oversize height restrictions.





Segment 16 Shasta County PM R9.8/R12.2



I-5 Project Sheet Segment 16-Knighton Road to South Bonnyview Road (Shasta PM R9.8/R12.2)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						

In-Progress

Cable Median Barrier	Safety	SHA R4.2/R8.5 & R12.1/16.2	2009	SHOPP	\$4,642,000	Caltrans	
Install cable median barrier.							

<u>Future</u>

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans			
	Systems								
Enhance traffic operations t	Enhance traffic operations through ITS-Various locations.								
Expansion	Capacity	SHA R9.8/R12.2	TBD	TBD	See Figure 3 pages 44-45	TBD			
Expand freeway to six lane	Expand freeway to six lanes.								
		•	•		•	•			

Date: June 2008

General Information

County:ShastaRoute 5Segment #:005SHA017Length Miles:2.2LocationSouth Bonnyview Road to Cypress AvenueDirectional:No

PM Limit R12.2 / R14.4 Exit #'s: 675, 677

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Not Permitted; Alternate Route

Available.

Facility Concept

Present:Four-lane freewayTwenty-Year:Six-lane freewayLong Range:Eight-lane freeway

Future Design Concept

Design Speed: 55-80 mph

Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.95 Climbing Lane (s): No

Number of Lanes: 4

Lane Width: 12 ft Terrain: Level 2 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 11% 65 mph Posted Speed: Percent RVs: 1% Median Barrier: Yes

K factor: 0.08 Median Width: 84 ft Interchange Density: 0.7

Median Type: Unpaved

Directional Split: 58% (South pm)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	59000	4700	23.6	С	
2010	72000	5800	29.5	D	
2015	80000	6400	34.4	D	С
2020	89000	7100	42.7	Е	С
2025	95000	7600	>45	F	С
2030	95000	7800	>45	F	С

¹Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.

Segment Description



This freeway segment begins at South Bonnyview Road Interchange and ends at Cypress Avenue Interchange. The segment contains an urbanized interchange at Cypress Avenue. This segment is inside the City of Redding limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 10% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Nine structures exist in this segment. The median is mostly unpaved (dirt) median.

Parallel or Connecting Routes SR 273, Deschutes Road, Churn Creek Road, and Bechelli Lane

Significant Land Uses

This is the urban center of Redding. Freeway commercial surrounds the Cypress Avenue Interchange with gas stations, restaurant establishments, retail shopping, and offices. Additional land uses include general commercial with lots of shopping centers, restaurant establishments, city hall offices, hotels, auto dealerships, schools, Hilltop Drive commercial, Mistletoe industrial, and multi- and single-family residential. Future developmental potential is limited to infill and redevelopment. Cypress is a key connection to the east and west sides of Redding and crosses over the Sacramento River.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Expand freeway to six lanes. Improve traffic operations through ITS.

General Issues

Traffic in this urban center of the City of Redding is significant. The weaving areas between South Bonnyview Road and Cypress Avenue affects mainline operation. Cypress Avenue provides one of a only a few key eastwest crossings of the Sacramento River. The Sacramento River runs parallel to the segment. Hartnell Road Overcrossing (06-0124L/R) has oversize height restrictions.





Segment 17 Shasta County PM R12.2/R14.4



I-5 Project Sheet Segment 17-South Bonnyview Road to Cypress Avenue (Shasta PM R12.2/R14.4)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						

In-Progress

Cable Median Barrier	Safety	SHA R4.2/R8.5 & R12.1/16.2	2009	SHOPP	\$4,642,000	Caltrans
Install cable median barrier.						
South Redding Six lane	Mobility Improvements	SHA R11.R17.5	TBD	STIP	\$40,777,000	Caltrans/Shasta RTPA

ENVIRONMENTAL ONLY. The section of I-5 from the Bonnyview Road Interchange north to the I-5/SR 44 freeway to freeway interchange has the highest traffic volumes and the highest levels of congestion on Interstate 5 north of Sacramento to the Oregon State line. This project proposes to add a median lane in each direction to add capacity, improve operations, and reduce congestion. Without these improvements, this segment will operate at Level of Service F within the next years. It is estimated that the project will Improve mobility by reducing the number of average annual vehicle hours of delay by 136,636 hours.

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
•	Systems					
Enhance traffic operat	tions through ITS-Various locations.					
Expansion	Capacity	SHA R12.2/R14.4	TBD	TBD	See Figure 3 pages 44-45	TBD
Expand freeway to six	lanes.			•		
					•	
•						
	<u>. </u>		•			•

Date: June 2008

General Information

Route 5 County: Shasta **Segment #:** 005SHA018 Length Miles: 1.0 Location Cypress Avenue to SR 44 Separation (Central Redding) Directional: Nο

PM Limit R14.4 / R15.4 Exit #'s: 677, 678, 678A, 678B

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network). High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Not Permitted; Alternate Route **Bicycle Status:**

Available.

Facility Concept

Present: Four-lane freeway Twenty-Year: Six-lane freeway Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 55-80 mph

Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: Climbing Lane (s): No 0.95

4 Number of Lanes:

Lane Width: 12 ft Terrain: Level 5 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 11% 65 mph Posted Speed: Percent RVs: 2% Median Barrier: Yes

K factor: 0.09 Median Width: 84 ft

Interchange Density: 1.8

Median Type: Unpaved; Separate **Directional Split:**

54% (South pm) Structures

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	67000	6000	29.1	D	
2010	77000	6900	35.5	Е	
2015	87000	7800	>45	F	С
2020	94000	8500	>45	F	D
2025	100000	9000	>45	F	D
2030	103000	9300	>45	F	D

Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This freeway segment begins at Cypress Avenue and ends at the SR 44 Separation (Central Redding). There is one urbanized interchange at SR 44 Separation (Central Redding). This segment is inside the City of Redding limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 10% AADT). There is an auxiliary lane in each direction between Cypress Avenue and the SR 44 Separation. In addition to the auxiliary lanes, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside paved shoulders. The median is mostly unpaved (dirt) median.

<u>Parallel or Connecting Routes</u> SR 44, SR 273, and Deschutes Road, Churn Creek Road, Shasta View Drive, Hilltop Drive, Old Oregon Trail

Significant Land Uses

This is the urban center of Redding. Existing land uses include freeway commercial with gas stations, retail shopping, offices, and restaurant establishments. SR 44 allows access to downtown Redding with general commercial, hotels, office buildings, hospitals, multi- and single-family residential, and Sundial Bridge recreation and Turtle Bay Museum. There is also general commercial and hotels at Hilltop Drive and Dana Drive. Future developmental potential is limited to infill and redevelopment.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Already exceeds Concept LOS (C/D threshold) in 2005. Expand freeway to six lanes. Post twenty-year concept expand to eight lanes. Improve traffic operations through ITS.

General Issues

Traffic in this urban center of Redding is significant. This segment has the highest traffic volume in Caltrans District 2. The weaving areas between Cypress Avenue and SR 44 Separation affects mainline operation. The Sacramento River runs parallel to the segment. SR 44 is one of only a few key east-west crossings of the Sacramento River. Congestion on SR 44 and vicinity of I-5 Interchange in both am and pm peak periods. Structures shoulders and inside shoulders do not meet current standard for shoulder width.





Segment 18 Shasta County PM R14.4/R15.4



I-5 Project Sheet Segment 18-Cypress Avenue to SR 44 Separation (Shasta PM R14.4/R15.4)

Segment Projects/Improvements

Name Type Location Year Program Cost	Sponsor
--------------------------------------	---------

In-Progress

I-5/SR 44 Direct	Operational Improvements	SHA R15.0/R15.8	2010	SHOPP	\$11,818,000	Caltrans
Connector	-					
Central southbound interchar	nge collector distributor.					
Cable Median Barrier	Safety	SHA R4.2/R8.5 & R12.1/16.2	2009	SHOPP	\$4,642,000	Caltrans
Install cable median barrier.						
South Redding Six lane	Mobility Improvements	SHA R11.R17.5	TBD	STIP	\$40,777,000	Caltrans/Shasta RTPA

ENVIRONMENTAL ONLY. The section of I-5 from the Bonnyview Road Interchange north to the I-5/SR 44 freeway to freeway interchange has the highest traffic volumes and the highest levels of congestion on Interstate 5 north of Sacramento to the Oregon State line. This project proposes to add a median lane in each direction to add capacity, improve operations, and reduce congestion. Without these improvements, this segment will operate at Level of Service F within the next years. It is estimated that the project will Improve mobility by reducing the number of average annual vehicle hours of delay by 136,636 hours.

<u>Future</u>

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
	Systems					
Enhance traffic operations th	rough ITS-Various locations					
Central Redding	Mobility Improvements	SHA R14.5/R16.2	TBD	TBD	\$60,654,000	TBD
Interchange						
Eliminate all weaves at this f	reeway-to-freeway interchange by	replacing the southbou	nd to eastb	ound loop ramp with a	direct connector r	amp. The currently
programmed SHOPP project	t addresses weave conditions on I-	5, but does not improve	congeste	d weave operations on	SR 44 through the	e interchange.
East Redding Separator	Bridge Preservation	SHA R15.43	2014	SHOPP	\$2,800,000	Caltrans
06-0126R						
Upgrade vertical clearance.						
East Redding Separator	Bridge Preservation	SHA R15.43	2014	SHOPP	\$700,000	Caltrans
06-0126L						
Upgrade vertical clearance.						
I-5/SR 44W Connector	Bridge Preservation	SHA R15.43	2014	SHOPP	\$1,722,000	Caltrans
06-126G						
Upgrade vertical clearance						
Expansion	Capacity	SHA R6.7/R9.8	TBD	TBD	See Figure 3	TBD
					pages 44-45	
Expand freeway to six lanes.						

Date: June 2008

General Information

Route 5 County: Shasta **Segment #:** 005SHA019 Length Miles: 1.9 Location SR 44 Separation (Central Redding) to SR 299E Separation Directional: Nο

PM Limit R15.4 / R17.3 **Exit #'s:** 678, 678A, 678B, 680

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network). High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Not Permitted; Alternate Route **Bicycle Status:**

1

Available.

Facility Concept

Present: Four-lane freeway Twenty-Year: Six-lane freeway Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 55-80 mph

Clear Recovery: 30 ft

6 lanes. 12-ft lane width; 10-ft **Typical Section:**

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: Climbing Lane (s): No 0.95

4 Number of Lanes:

Lane Width: 12 ft Terrain: Level 5 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 11% 65 mph Posted Speed: Percent RVs: 1% Median Barrier: Yes

K factor: 0.09 Median Width: 84 ft

Interchange Density: Median Type: Unpaved; Separate

Directional Split:

54% (South pm) Structures

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	58000	5200	27.9	D	
2010	67000	6000	33.7	D	
2015	77000	6900	44.2	Е	С
2020	86000	7700	>45	F	D
2025	94000	8500	>45	F	D
2030	99000	8900	>45	F	D

Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This segment begins at the State Route 44 Separation (Central Redding) and ends at SR 299E Separation. The segment contains an urbanized interchange at SR299E Separation. This segment is inside the City of Redding limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 9% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Five structures exist in this segment. The median is mostly unpaved (dirt) median.

<u>Parallel or Connecting Routes</u> SR 299E, SR 273, Deschutes Road, Churn Creek Road, Shasta View Drive, Hilltop Drive, Old Oregon Trail

Significant Land Uses

Land uses include general commercial with at Hilltop Drive and Lake Boulevard, multi-and single-family residential, and institutional with access to Simpson University and Shasta College. Additionally, the communities of Bella Vista, Montgomery Creek, Burney, and Fall River are accessed via SR 299E. Future development potential along I-5 is limited to infill and redevelopment and growth in aforementioned communities on SR 299E.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Already exceeds Concept LOS (C/D threshold) in 2005. Expand freeway to six lanes. Improve traffic operations through ITS.

General Issues

Traffic in this urban center of Redding is significant. Weaving areas from off ramps affects mainline operation. East Redding Separator (06-0126L/R) and Jct SR 44 West Connector (06-0126G) have oversize height restrictions.





Segment 19 Shasta County PM R15.4/R17.3



I-5 Project Sheet Segment 19-SR 44 Separation to SR 299E (Shasta PM R15.4/R17.3)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
n-Progress						
Lake Blvd SB On-ramp	Collision Reduction	SHA R16.2/R17.3	2008	SHOPP	\$1,722,000	Caltrans
Lengthen on ramp merge (I	North of Hilltop Drive to South of SF	R 299).	•			•
Cable Median Barrier	Safety	SHA R4.2/R8.5 & R12.1/16.2	2009	SHOPP	\$4,642,000	Caltrans
Install cable median barrier.			•			•
I-5/SR 44 Direct Connector	Operational Improvements	SHA R15.0/R15.8	2010	SHOPP	\$11,225,000	Caltrans
Central southbound intercha	ange collector distributor.		•			•
South Redding Six lane	Mobility Improvements	SHA R11.R17.5	TBD	STIP	\$40,777,000	Caltrans/Shasta RTPA
traffic volumes and the high	The section of I-5 from the Bonny est levels of congestion on Intersta acity, improve operations, and reducity.	ite 5 north of Sacramen	to to the O	regon State line. T	his project proposes t	o add a median lane

within the next years. It is estimated that the project will Improve mobility by reducing the number of average annual vehicle hours of delay by 136,636 hours.

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
	Systems					
Enhance traffic operations thr	ough ITS-Various locations					
Central Redding	Mobility Improvements	SHA R14.5/R16.2	TBD	TBD	\$60,654,000	TBD
Interchange						
On I-5 in Shasta County at he	e I-5/SR 44 interchange. Eliminate	all weaves at this free	way-to-free	eway interchange by re	placing the southb	ound to eastbound
	ctor ramp. The currently program	med SHOPP project a	ddresses v	veave conditions on I-5	, but does not imp	rove congested
weave operations on SR 44 t	hrough the interchange.					
East Redding Separator	Bridge Preservation	SHA R15.43	2014	SHOPP	\$2,800,000	Caltrans
06-0126R						
Upgrade vertical clearance.						
East Redding Separator	Bridge Preservation	SHA R15.43	2014	SHOPP	\$700,000	Caltrans
06-0126L						
Upgrade vertical clearance.						
I-5/SR 44W Connector	Bridge Preservation	SHA R15.43	2014	SHOPP	\$1,722,000	Caltrans
06-126G						
Upgrade vertical clearance.						
Expansion	Capacity	SHA R6.7/R9.8	TBD	TBD	See Figure 3	TBD
					pages 44-45	
Expand freeway to six lanes.	·	·		·		·

Date: June 2008

General Information

County:ShastaRoute 5Segment #:005SHA020Length Miles:1.2LocationSR 299E Separation to SR 273N SeparationDirectional:No

PM Limit R17.3 / R18.5 **Exit #'s:** 680, 681, 681A, 681B

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Not Permitted; Alternate Route

Available.

Facility Concept

Present:Four-lane freewayTwenty-Year:Six-lane freewayLong Range:Eight-lane freeway

Future Design Concept

Design Speed: 55-80 mph

Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.95 Climbing Lane (s): No

Number of Lanes: 4

Lane Width: 12 ft Terrain: Level 5 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 12% 65 mph Posted Speed: Percent RVs: 2% Median Barrier: Yes

K factor: 0.09 Median Width: 84 ft

Interchange Density: 2

Median Type: Unpaved; Separate

Directional Split: 54% (South pm) Structures

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	44500	4000	23.6	С	
2010	54000	4900	26.4	D	
2015	64000	5800	32.4	D	С
2020	74000	6700	>45	Е	D
2025	81000	7300	>45	F	С
2030	87000	7800	>45	F	D

¹Capacity-increasing projects identified for this segment. See "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This segment begins at the State Route 299E Separation and ends at SR 273N Separation. The segment contains two urbanized interchanges at Twin View Boulevard and SR273N Separation. This segment is inside the City of Redding limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 11% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Two structures exist in this segment. The median is mostly unpaved (dirt) median.

<u>Parallel or Connecting Routes</u> SR 273, Old Oregon Trail

Significant Land Uses

Land uses include freeway commercial with gas stations and retail shopping. There is also a few hotels. There is multi- and single-family residential and general commercial near Twin View, and to the west there is Caterpillar Road industrial. If the Oasis Specific Plan on the east side of I-5 encompassing 762 acres and provides for over 3 million square feet of commercial development and over 2,000 residential units develops, then this area would be significantly impacted and traffic would increase dramatically.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Expand freeway to six lanes. Improve traffic operations through ITS.

General Issues

Significant weaving area. Structures shoulders and inside shoulders do not meet current standard for shoulder width.





Segment 20 Shasta County PM R17.3/R18.5



I-5 Project Sheet Segment 20-SR 299E to SR 273 North/North Market Street (Shasta PM R17.3/R18.5)

Name Type Location Year Program Cost Sponsor Completed In-Progress

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
_	Systems					
Enhance traffic operations the	ough ITS-Various locations					
Expansion	Capacity	SHA R6.7/R9.8	TBD	TBD	See Figure 3 pages 44-45	TBD
Expand freeway to six lanes.						

Date: June 2008

General Information

Route 5 County: Shasta **Segment #:** 005SHA021 Length Miles: 0.9 Location SR 273N Separation to Oasis Road Directional: Nο

PM Limit R18.5 / R19.4 Exit #'s: 681, 681A, 681B, 682

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present: Six-lane freeway Twenty-Year: Six-lane freeway Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 55-80 mph

Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: Climbing Lane (s): No 0.95

6 Number of Lanes:

Lane Width: 12 ft Terrain: Level 5 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 13% 65 mph Posted Speed: Percent RVs: 1% Median Barrier: Yes

K factor: 0.09

Median Width: 36-84 ft **Interchange Density:** 0.83

Directional Split: 54% (South pm) Median Type: Paved; Unpaved

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	46500	4200	14.6	В	
2010	58000	5200	18.2	С	
2015	68000	6100	21.4	С	
2020	80000	7200	25.3	С	
2025	87000	7800	27.8	D	
2030	94000	8500	30.8	D	

¹No capacity-increasing projects identified for this segment.

Segment Description



This segment begins at the State Route 273N Separation and ends at Oasis Road Interchange. The segment contains an urbanized interchange at the Oasis Road. This segment is inside the City of Redding limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 10% AADT). Currently, the segment consists of a six-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Two structures exist in this segment. The median is paved with a concrete barrier.

Parallel or Connecting Routes Old Oregon Trail, Twin View Boulevard

Significant Land Uses

Current land uses consist of freeway commercial with restaurant establishments and gas stations. There is also general commercial, industrial, and multi-and single-family residential. The Oasis Specific Plan on the east side of I-5 encompasses 762 acres and provides for over 3 million square feet of commercial development and over 2,000 residential units. This is the next major growth area for the City of Redding. The plan calls for ultimate replacement of the Oasis Interchange.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2025. Reconstruct Oasis Road Interchange. Improve traffic operations through ITS.

General Issues

Significant weaving area from SR 273 NB onto I-5 NB and Oasis to I-5 SB.





Segment 21 Shasta County PM R18.5/R19.4



I-5 Project Sheet Segment 21-SR 273 North/North Market Street to Oasis Road (Shasta PM R18.5/R19.4)

Segment Projects/In	nprovements					
Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						
			1		I	
In-Progress						
Future Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
	Systems			101110011011	40,000,000	
Enhance traffic operation	ons through ITS-Various locations	1	-	1	T	1
	1					
					.	
		T	-	1	T	
					1	

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA022 Length Miles: 1.6

Location Oasis Road to Pine Grove **Directional:** No

PM Limit R19.4 / R21.0 Exit #'s: 682, 684

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Not Permitted; Alternate Route

Available.

Facility Concept

Present: Six-lane freeway
Twenty-Year: Six-lane freeway
Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 55-80 mph
Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.92 Climbing Lane (s): No

Number of Lanes: 6

Lane Width: 12 ft Terrain: Level 5 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 15% 65 mph Posted Speed: Percent RVs: 2% Median Barrier: Yes

K factor: 0.09 Median Width: 36 ft

Interchange Density: 0.83

Median Type: Paved

Directional Split: 54% (South pm)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	38000	3400	12.8	В	
2010	44000	4000	15.0	В	
2015	50000	4500	16.8	В	
2020	57000	5100	19.1	С	
2025	61000	5500	20.9	С	
2030	65000	5900	21.8	С	

¹No capacity-increasing projects identified for this segment.

Segment Description



This segment begins at the Oasis Road Interchange and ends at Pine Grove Avenue Interchange. The segment contains an urbanized interchange at Pine Grove. This segment is inside the Cities of Redding and City of Shasta Lake limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 12% AADT). Currently, the segment consists of a six-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Two structures exist in this segment. The median is a paved with a concrete barrier.

Parallel or Connecting Routes Old Oregon Trail, Twin View Boulevard, and Cascade Boulevard

Significant Land Uses

Current land uses consist of freeway commercial, general commercial, industrial, multi- and single-family residential. The west side of I-5 there is a large subdivision with over 150 homes. Additionally, off Pine Grove Avenue there is the Shasta Gateway Industrial Park. The Oasis Specific Plan encompasses 762 acres and provides for over 3 million square feet of commercial development and over 2,000 residential units. This is the next major growth area for the City of Redding.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

No capacity increasing projects identified within 20-year planning horizon. Improve traffic operations through ITS.

General Issues

Structures shoulders and inside shoulders do not meet current standard for shoulder width.





Segment 22 Shasta County PM R19.4/R21.0



I-5 Project Sheet Segment 22-Oasis Road to Pine Grove Avenue (Shasta PM R19.4/R21.0)

Name	Туре	Location	Year	Program	Cost	Sponsor
ompleted						
-Progress						
n-Progress						
n-Progress						
n-Progress uture Expand TMS	Transportation Management Systems	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA023 Length Miles: 1.1

Location Pine Grove to SR 151 **Directional:** No

PM Limit R21.0 / R22.1 **Exit #'s:** 684, 685

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Not Permitted; Alternate Route

Available.

Facility Concept

Present: Six-lane freeway
Twenty-Year: Six-lane freeway
Long Range: Eight-lane freeway

Future Design Concept

Design Speed: 55-80 mph

Clear Recovery: 30 ft

Typical Section: 6 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.92 Climbing Lane (s): No

Number of Lanes: 6

Terrain: Level Lane Width: 12 ft

Grade: N/A In/Outside Shoulder: 5 ft/10 ft

Percent Trucks: 16% Posted Speed: 65 mph

Percent RVs: 1% Median Barrier: Yes

Percent RVs: 1% Median Barrier:

K factor: 0.09 Median Width:

Note that the second of the se

Median Type: Paved

Directional Split: 54% (South pm)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	33500	3000	11.1	В	
2010	38000	3400	12.7	В	
2015	42500	3800	14.2	В	
2020	49000	4400	16.3	В	
2025	53000	4800	17.7	В	
2030	58000	5200	19.3	С	

¹No capacity-increasing projects identified for this segment.

Segment Description



This segment begins at the Pine Grove Avenue Interchange and ends at SR 151 Interchange. The segment contains an urbanized interchange at SR 151. This segment is inside the City of Shasta Lake limits. Travel on this section of the corridor is predominately local/regional trips with moderate interregional trips, and a smaller percentage of goods movement (five-axle trucks 14% AADT). Currently, the segment consists of a six-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. One structure exists in this segment. The median is paved with a concrete barrier.

Parallel or Connecting Routes SR 151, Old Oregon Trail, and Cascade Boulevard

Significant Land Uses

SR 151 (also a portion known as Shasta Dam Boulevard) is a main street for the City of Shasta Lake. Freeway commercial surrounds the SR 151 interchange. This segment also consists of multi- and single-family residential, general commercial, and governmental offices. SR 151 provides access to significant traffic generators: Shasta Dam and Shasta Lake. Both of these are tourist and recreational attractions.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

No capacity increasing projects identified within 20-year planning horizon. Improve traffic operations through ITS.

General Issues

Inside shoulders do not meet current standard for shoulder width.





Segment 23 Shasta County PM R21.0/R22.1



5 Project Sheet Segment 23-Pine Grove Avenue to SR 151 (Shasta PM R21.0/R22.1)

Segment Projects/Impro	vements					
Name	Туре	Location	Year	Program	Cost	Sponsor
	7.			3		•
Completed						
		T	1	1	T	
<u>In-Progress</u>						
		•		•	•	•
<u>Future</u>						
			1	1		T -
Expand TMS	Transportation Management Systems	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
Enhance traffic operations th	rough ITS-Various locations.					
			T	1		
	<u> </u>		1			
		•		•	•	•

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA024 Length Miles: 3.9

Location SR 151 to Fawndale Road **Directional**: No

PM Limit R22.1 / R26.0 **Exit #'s:** 685, 687, 689

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present:Four-lane freewayTwenty-Year:Six-lane freewayLong Range:Eight-lane freeway

Future Design Concept

Design Speed: 50-80 mph

Clear Recovery: 30 ft

Typical Section: 4 lanes. 12-ft lane width; 10-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.88 Climbing Lane (s): No.

Number of Lanes: 4

Terrain: Rolling Lane Width: 12 ft

Grade: N/A In/Outside Shoulder: 5 ft/10 ft

Percent Trucks: 22% Posted Speed: 65 mph
Percent RVs: 2% Median Barrier: Yes

K factor: 0.10 Median Width: 36 ft

Interchange Density: 0.67

Median Type: Paved

Directional Split: 58% (North pm)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	21800	2200	15.0	В	
2010	25000	2500	17.2	В	
2015	29500	3000	20.3	С	
2020	31500	3200	21.7	С	
2025	34000	3400	23.4	С	
2030	37000	3700	25.6	С	

¹No capacity-increasing projects identified for this segment.

Segment Description



This segment runs from SR 151 Interchange and ends at Fawndale Road. The segment contains two rural interchanges at Mountain Gate and Fawndale. Travel on this section of the corridor is a mixture of regional trips and longer interregional trips and goods movement (five-axle trucks 20% AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Five structures exist in this segment. There are locations to put chains on in this segment. There is a Weigh in Motion location in the northbound direction at Mountain Gate (PM R24.9). The median is paved with a concrete barrier.

Parallel or Connecting Routes Old Oregon Trail

Significant Land Uses

Segment land uses include some freeway commercial with gas stations and restaurant establishments at Mountain Gate Road and Fawndale Road. Additional land uses include recreational with RV and camping resorts, and single-family residential. Most of the multi-family housing is on five acres or more. Potential for traffic growth exists around the interchanges with general commercial and the west side of the interstate between SR 151 and Mountain Gate Interchanges with residential.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

No capacity increasing projects identified within 20-year planning horizon. Improve traffic operations through ITS.

General Issues

This is the truck chain-on and holding area when winter conditions are bad to the north. Few alternative routes and limited detours. Limited services available.





Segment 24 Shasta County PM R22.1/R26.0



Project Sheet Segment 24-SR 151 to Fawndale (Shasta PM R22.1/R26.0)

Name	Туре	Location	Year	Program	Cost	Sponsor
<u>ompleted</u>						
Mountain Gate CAPM	Roadway Preservation	SHA R23.0/R26.2	2002	SHOPP	\$4,585,000	Caltrans
Improve ride on road.		1	_		1	
n-Progress						
n-Progress						
n-Progress						
n-Progress						
n-Progress						

Expand TMS	Transportation Management Systems	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
Enhance traffic operations the						
		T		1	1	T
	1	T	1	1	1	T
	1					
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Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA025NB Length Miles: 2.9

Location Fawndale Road to Bridge Bay Overcrossing-NB **Directional:** Yes. NB.

PM Limit R26.0 / R28.9 **Exit #'s:** 689, 690

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present:Four-lane freewayTwenty-Year:Four-lane freewayLong Range:Four-lane freeway

Future Design Concept

Design Speed: 50-80 mph

Clear Recovery: 30 ft

Typical Section: 4 lanes with climbing lane. 12-ft

lane width; 5-ft inside shoulder;

10-ft outside shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.88 Climbing Lane (s): Yes. R26.270/R27.460

Number of Lanes: 4

Terrain: Mountainous Lane Width: 12 ft

Grade: 5.0% (6.5% max) In/Outside Shoulder: 5 ft/10 ft

Percent Trucks: 26% Posted Speed: 65 mph (curve warnings)

Percent RVs: 2% Median Barrier: Yes

K factor: 0.12 Median Width: 4-22 ft

Interchange Density: 0.67

Median Type: Paved; Unpaved; Separate
Directional Split: 54% (North) Structures: Separate

Grades; Sawtooth

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	11300	1400	19.3	С	
2010	13100	1600	22.4	С	
2015	14700	1800	26.2	D	
2020	16500	2000	30.3	D	
2025	17900	2100	31.7	D	С
2030	19700	2400	33.6	D	С

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

¹Operational project(s) identified in this segment-see "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

The NB freeway segment begins at Fawndale Road Interchange and ends at Bridge Bay Interchange. The segment contains an rural interchange at Bridge Bay. There is a sign stating "Entering National Recreation Area-Shasta Lake from the Shasta-Trinity National Forest." Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 24% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and one to five-foot inside shoulders. There is a climbing lane at PM R26.27/R27.46. Two structures exist in this segment. One of the structures is known as the Pit River Bridge was built in 1942 by the Bureau of Reclamation as part of the Central Valley project. This bridge has a steel truss design supporting a concrete upper deck serving motorists on Interstate 5 and a lower railway used by Union Pacific Railroad. The median is mostly a sawtooth paved with a concrete barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. Development along I-5 in this segment includes federal and state land ownership with most of it being recreational natural lands such as Shasta Lake. Shasta Lake offers house boating, fishing, and camping. In this segment, Bridge Bay Resort features lodging, dining, grocery store/tackle and bait shop, and a marina. Future development is expected to be limited with federal and state land ownership, rough topography, and limited availability of water. At times the Bureau of Reclamation has discussed raising Shasta Dam for more water storage. If this occurs, there would need to be new freeway alignment and a new bridge.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2015. Improve Pit River Bridge. Extend northbound truck climbing lane. Improve traffic operations through ITS.

General Issues

Uphill grade in the northbound direction. Curvilinear freeway segment because of traveling through the Sacramento River Canyon. High percentage of truck traffic limits maneuverability (creates rolling queues). Parallels the Sacramento River. Crosses Shasta Lake with the Pit River Bridge. The Pit River bridge contains an upper deck serving motorists and a lower deck used by Union Pacific Railroad. This bridge is 64-years old and near the end of its service life. Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability. Some structures do not have inside shoulders.





Segment 25 Shasta County PM R26.0/R28.9 NB



I-5 Project Sheet Segment 25 NB-Fawndale to Bridge Bay (Shasta PM R26.0/R28.9)

Segment Projects/Improvements

Construct protective structure.

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						
Mountain Gate CAPM	Roadway Preservation	SHA R23.0/R26.2	2002	SHOPP	\$4,585,000	Caltrans
Improve ride on road.	-		·	•		1
Gilman Median Barrier	Safety	SHA R34.2/R51.8	2003	SHOPP	\$8,932,00	Caltrans
Collision reduction.		•	•	•		•
Pit River Deck	Emergency Response	SHA 27.4/R29.0	2006	Emergency FA	\$6,500,000	Caltrans
Repair bridge deck.		·			•	
Pit River Bridge Deck	Bridge Rehabilitation	SHA R25.9/R31.2	2008	SHOPP	\$7,000,000	Caltrans

In-Progress

Pit River Deck	Bridge Preservation	SHA R28.0/R29.0	2006	SHOPP	\$33,810,000	Caltrans
Construct new deck.						

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
	Systems					
Enhance traffic operations th	rough ITS-Various locations.					
Pit River Bridge	Bridge Preservation	SHA R28.14	2014	Ten-Year SHOPP	\$10,000,000	Caltrans
Seismic Retrofit.						
Pit River Bridge	Bridge Replacement	SHA R28.14	2017	Ten-Year SHOPP	\$400,000,000	Caltans
Bridge replacement.						
Truck Climbing Lane	Operational Improvements	SHA	2025	Ten-Year SHOPP	TBD	Caltrans
_		R26.270/R27.460				
Extend length of northbound	d truck climbing lane located at S	HA R26.270/R27.460.				
_						
	•					
	•	•	•	•	•	•

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA025SB Length Miles: 2.9

Location Bridge Bay Overcrossing to Fawndale Road-SB Directional: Yes. SB.

PM Limit R28.9 / R26.0 Exit #'s: 690, 689

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present: Four-lane freeway Twenty-Year: Four-lane freeway Long Range:

Four-lane freeway

Future Design Concept 50-80 mph

Design Speed: Clear Recovery: 30 ft

Typical Section: 4 lanes. 12-ft lane width; 5-ft

inside shoulder; 10-ft outside

shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: Climbing Lane (s): No 0.88

4 Number of Lanes:

Lane Width: 12 ft Terrain: Rolling 5 ft/10 ft Grade: In/Outside Shoulder: N/A

Percent Trucks: 26% 65 mph (curve warnings)

Percent RVs: 2% Median Barrier: Yes

K factor: 0.12 Median Width:

4-22 ft Interchange Density: 0.5

Median Type: Paved; Unpaved; Separate **Directional Split:** 57% (South pm)

Posted Speed:

Structures: Separate Grades: Sawtooth

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	12000	1400	20.1	С	
2010	13800	1700	23.2	С	
2015	15600	1900	24.4	D	
2020	17400	2100	29.4	D	
2025	18900	2300	32.3	D	С
2030	20700	2500	37.3	Е	С

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

¹Operational project(s) identified in this segment-see "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This SB freeway segment begins at Bridge Bay Interchange and ends at Fawndale Road Interchange. The segment contains an rural interchange at Bridge Bay. There is a sign stating "Leaving National Recreation Area-Shasta Lake from the Shasta-Trinity National Forest." Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 24% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and one to five-foot inside shoulders. Two structures exist in this segment. One of the structures is known as the Pit River Bridge was built in 1942 by the Bureau of Reclamation as part of the Central Valley project. This bridge has a steel truss design supporting a concrete upper deck serving motorists on Interstate 5 and a lower railway used by Union Pacific Railroad. The median is mostly a sawtooth paved with a concrete barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. Development along I-5 in this segment includes federal and state land ownership with most of it being recreational natural lands such as Shasta Lake. Shasta Lake offers house boating, fishing, and camping. In this segment, Bridge Bay Resort features lodging, dining, grocery store/tackle and bait shop, and a marina. Future development is expected to be limited with federal and state land ownership, rough topography, and limited availability of water. At times the Bureau of Reclamation has discussed raising Shasta Dam for more water storage. If this occurs, there would need to be new alignment and a new bridge.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Improve Pit River Bridge. Add southbound truck climbing lane. Improve traffic operations through ITS.

General Issues

Downhill grade in the SB direction. Curvilinear freeway segment because of traveling through the Sacramento River Canyon. High percentage of truck traffic limits maneuverability (creates rolling queues). Parallels the Sacramento River and contains the Pit River Bridge over Shasta Lake. The Pit River bridge contains an upper deck serving motorists and a lower deck used by Union Pacific Railroad. This bridge is 64-years old and near the end of its service life. Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability. Curvilinear road.





Segment 25 Shasta County PM R28.9/R26.0 SB



I-5 Project Sheet Segment 25 SB-Bridge Bay to Fawndale (Shasta PM R28.9/R26.0)

Segment Projects/Improvements

Bridge Rehabilitation

Name	Туре	Location	Year	Program	Cost	Sponsor
Commission				<u> </u>		-
Completed						
Mountain Gate CAPM	Roadway Preservation	SHA R23.0/R26.2	2002	SHOPP	\$4,585,000	Caltrans
Improve ride on road.	·					
Gilman Median Barrier	Safety	SHA R34.2/R51.8	2003	SHOPP	\$8,932,00	Caltrans
Collision reduction.	<u> </u>		•	•	<u> </u>	•
Pit River Deck	Emergency Response	SHA 27.4/R29.0	2006	Emergency FA	\$6,500,000	Caltrans

SHA R25.9/R31.2

In-Progress

Repair bridge deck.

Pit River Bridge Deck

Protective Structure

Construct protective structure.

Pit River Deck	Bridge Preservation	SHA R28.0/R29.0	2006	SHOPP	\$33,810,000	Caltrans
Construct new deck.						

2008

SHOPP

\$7,000,000

Caltrans

Future

Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
Systems					
through ITS-Various locations					
Bridge Preservation	SHA R28.14	2014	Ten-Year SHOPP	\$10,000,000	Caltrans
Bridge Replacement	SHA R28.14	2017	Ten-Year SHOPP	\$400,000,000	Caltans
Operational Improvements	SHA R28.9/	2025	Ten-Year SHOPP	TBD	Caltrans
	SHA R26.0				
nbing lane.					
	through ITS-Various locations Bridge Preservation Bridge Replacement Operational Improvements	through ITS-Various locations Bridge Preservation SHA R28.14 Bridge Replacement SHA R28.14 Operational Improvements SHA R28.9/ SHA R26.0	through ITS-Various locations Bridge Preservation SHA R28.14 2014 Bridge Replacement SHA R28.14 2017 Operational Improvements SHA R28.9/ SHA R26.0 2025	through ITS-Various locations Bridge Preservation SHA R28.14 2014 Ten-Year SHOPP Bridge Replacement SHA R28.14 2017 Ten-Year SHOPP Operational Improvements SHA R28.9/ SHA R26.0 2025 Ten-Year SHOPP	through ITS-Various locations Bridge Preservation SHA R28.14 2014 Ten-Year SHOPP \$10,000,000 Bridge Replacement SHA R28.14 2017 Ten-Year SHOPP \$400,000,000 Operational Improvements SHA R28.9/ SHA R26.0 2025 Ten-Year SHOPP TBD

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA026NB Length Miles: 7.1

Location Bridge Bay Overcrossing to O'Brien Road-NB Directional: Yes. NB.

PM Limit R28.9 / R36.0 **Exit #'s:** 690, 692, 694, 695

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present: Four-lane freeway Twenty-Year: Four-lane freeway Long Range:

Four-lane freeway

Future Design Concept

Design Speed: 50-80 mph Clear Recovery: 30 ft

Typical Section: 4 lanes with climbing lane. 12-ft

lane width; 5-ft inside shoulder:

10-ft outside shoulder

Separate Grades

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: Climbing Lane (s): Yes, R31,224/R32,480 0.88

4 Number of Lanes:

Lane Width: 12 ft Terrain: Mountainous 5 ft/10 ft Grade: In/Outside Shoulder: 5.0% (6.5% max)

Percent Trucks: 26% 65 mph (curve warnings) Posted Speed:

Percent RVs: 2% Median Barrier: Yes

K factor: 0.12 Median Width: 4-99 ft

Interchange Density: 0.33

Median Type: **Directional Split:** 54% (North)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	11100	1300	24.5	С	
2010	13100	1600	29.4	D	
2015	14700	1800	34.8	D	
2020	16500	2000	41.2	Е	
2025	18000	2200	42.7	E	С
2030	19700	2400	44.1	Е	D

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

¹Operational project(s) identified in this segment-see "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This NB freeway segment begins at Bridge Bay Road Interchange and ends at O'Brien Mountain Road Interchange. This segment has independent alignment. The segment contains two rural interchanges at Turntable Bay Road and O'Brien Mountain Road. Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 24% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. There is a climbing lane at PM R31.224/R32.480. Five structures exist in this segment. The O'Brien Roadside Rest Area (PM R31.033) is located in this segment. The median is on separate grades with no barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. Development along I-5 in this segment includes federal and state land ownership with most of it being recreational natural lands such as Shasta Lake. Shasta Lake offers house boating, fishing, and camping. In this segment off the O'Brien Mountain Exit, Shasta Caverns provides an tourist adventure to some caverns. O'Brien Mountain also has some well-placed home sites overlooking Shasta Lake. Turntable Bay Road has a development proposal to improve the quality of facilities and services currently provided by Digger Bay Marina through relocation of the marina operations to Turntable Bay. Specifically, the purpose is to provide a full-service, recreational marina on Shasta Lake that includes a launch ramp capable of operating at varying lake levels, a minimum of 100 additional public moorage facilities, adequate parking to support provided services, boat rentals, a retail store, fuel for vessels, potable water, refuse disposal, and public restrooms. Additional future development is expected to be limited with federal and state land ownership, rough topography, and limited availability of water.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Extend northbound truck climbing lane. Improve traffic operations through ITS.

General Issues

Uphill grade in the northbound direction. Curvilinear freeway segment because of traveling through the Sacramento River Canyon. High percentage of truck traffic limits maneuverability (creates rolling queues). Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability.





Segment 26 Shasta County PM R28.9/R36.0 NB



5 Project Sheet Segment 26 NB-Bridge Bay to O'Brien Road (Shasta PM R28.9/R36.0)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
<u>Completed</u>						
Gilman Median Barrier	Safety	SHA R34.2/R51.8	2003	SHOPP	\$8,932,00	Caltrans
Collision reduction.			•	•		•
Pit River Deck	Emergency Response	SHA 27.4/R29.0	2006	Emergency FA	\$6,5000,000	Caltrans
Repair bridge deck.	<u> </u>			<u> </u>	, , ,	•
Pit River Deck	Bridge Preservation	SHA R28.0/R29.0	2006	SHOPP	\$33,810,000	Caltrans
Construct new deck.	· •	•	•	•	•	•
Pit River Bridge Deck	Bridge Rehabilitation	SHA R25.9/R31.2	2006	SHOPP	\$7,000,000	Caltrans

In-Progress

Protective Structure

Construct protective structure.

North Cottonwood (06- 0038L), Sweetbriar (06- 0115), and Tunnel Gulch Viaduct (06-0131R)	Bridge Seismic Restoration	SHA R1.9, R30.6, R61.8	2011	SHOPP	\$10,600,000	Caltrans
SHA 5 seismic strengthening.						

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
•	Systems					
Enhance traffic operations th	rough ITS-Various locations.	•				
Sidehill 06-0042L and	Bridge Preservation	SHA R29.72 and	2012	Ten-Year SHOPP	\$8,200,000	Caltrans
Dog Creek 06-0027		R45.54				
Seismic strengthening of brid	dges.	•				
Truck Climbing Lane	Operational Improvements	SHA	2025	Ten-Year SHOPP	TBD	Caltrans
•		R31.224/R32.480				
Extend length of northboun	d truck climbing lane located at S	HA R31.224/R32.480				
-	_					
	•	•		•	•	•

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA026SB Length Miles: 7.1

Location O'Brien Road to Bridge Bay Overcrossing-SB **Directional:** Yes. SB.

PM Limit R36.0 / R28.9 **Exit #'s:** 695, 693, 692, 690

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present:Four-lane freewayTwenty-Year:Four-lane freewayLong Range:Four-lane freeway

Future Design Concept

Design Speed: 50-80 mph

Clear Recovery: 30 ft

Typical Section: 4 lanes with climbing lane. 12-ft

lane width; 5-ft inside shoulder;

10-ft outside shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.88 Climbing Lane (s): Yes. R31.968/R30.606

Number of Lanes: 4

Terrain:RollingLane Width:12 ftGrade:N/AIn/Outside Shoulder:5 ft/10 ft

Percent Trucks: 26% Posted Speed: 65 mph (curve warnings)

Percent RVs: 2% Median Barrier: Yes

K factor: 0.12 Median Width: 4-99 ft

Interchange Density: 0.33

Median Type: Separate Grades

Directional Split: 57% (South pm)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	11700	1400	15.8	В	
2010	13800	1700	18.7	В	
2015	15600	1900	21.0	С	
2020	17400	2100	23.6	С	
2025	19000	2300	25.9	С	
2030	20700	2500	29.1	D	В

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

¹Operational project(s) identified in this segment-see "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This SB freeway segment begins at O'Brien Mountain Road and ends at Bridge Bay Road Interchange. This segment has independent alignment. The segment contains three rural interchanges at Turntable Bay Road, Packers Bay Road, and O'Brien Mountain Road. This segment is outside the city limits. Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 24% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. There are climbing lanes at PM R30.606/R31.968 and R36.784/R34.202. Five structures exist in this segment. The median is on separate grades with no barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. Development along I-5 in this segment includes federal and state land ownership with most of it being recreational natural lands such as Shasta Lake. Shasta Lake offers house boating, fishing, and camping. In this segment off the O'Brien Mountain Exit, Shasta Caverns provides an tourist adventure to some caverns. O'Brien Mountain also has some well-placed home sites overlooking Shasta Lake. Packers Bay Road has a full service marina. Turntable Bay Road has a development proposal to improve the quality of facilities and services currently provided by Digger Bay Marina through relocation of the marina operations to Turntable Bay. Specifically, the purpose is to provide a full-service, recreational marina on Shasta Lake that includes a launch ramp capable of operating at varying lake levels, a minimum of 100 additional public moorage facilities, adequate parking to support provided services, boat rentals, a retail store, fuel for vessels, potable water, refuse disposal, and public restrooms. Additional future development is expected to be limited with federal and state land ownership, rough topography, and limited availability of water.

Traffic Projections

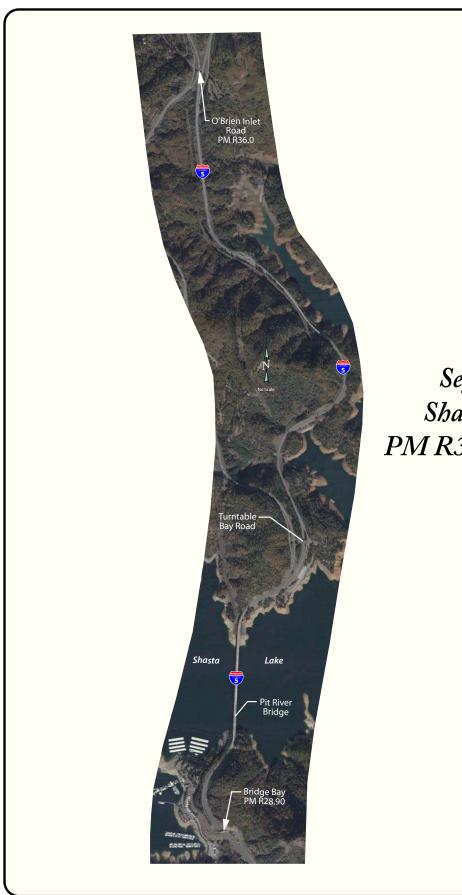
Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2030. Extend length of southbound truck climbing lane. Improve traffic operations through ITS.

General Issues

Downhill grade in the southbound direction. Curvilinear freeway segment because of traveling through the Sacramento River Canyon. High percentage of truck traffic limits maneuverability (creates rolling queues). This segment contains the Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability.





Segment 26 Shasta County PM R36.0/R28.9 SB



I-5 Project Sheet Segment 26 SB-O'Brien Road to Bridge Bay (Shasta PM R36.0/R28.9)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						
Gilman Median Barrier	Safety	SHA R34.2/R51.8	2003	SHOPP	\$8,932,00	Caltrans
Collision reduction.	•		•	•		
Pit River Deck	Emergency Response	SHA 27.4/R29.0	2006	Emergency FA	\$6,5000,000	Caltrans
Repair bridge deck.			•			•
Pit River Bridge Deck	Bridge Rehabilitation	SHA R25.9/R31.2	2006	SHOPP	\$7,000,000	Caltrans
Protective Structure						
Construct protective struct	ure.	•	•	•	•	•

In-Progress

Pit River Deck	Bridge Preservation	SHA R28.0/R29.0	2007	SHOPP	\$33,810,000	Caltrans		
Construct new deck.								
North Cottonwood (06- 0038L), Sweetbriar (06- 0115), and Tunnel Gulch Viaduct (06-0131R)	Bridge Seismic Restoration	SHA R1.9, R30.6, R61.8	2011	SHOPP	\$10,600,000	Caltrans		
SHA 5 seismic strengthening	SHA 5 seismic strengthening.							

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans		
-	Systems							
Enhance traffic operations through ITS-Various locations.								
Sidehill 06-0042L and	Bridge Preservation	SHA R29.72 and	2012	Ten-Year SHOPP	\$8,200,000	Caltrans		
Dog Creek 06-0027		R45.54						
Seismic strengthening of bridges.								
Truck Climbing Lane	Operational Improvements	SHA	2025	Ten-Year SHOPP	TBD	Caltrans		
		R31.968/R30.606						
Extend length of southbound truck climbing lane located at SHA R31.968/R30.606.								
	<u> </u>		•	<u> </u>	•			

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA027NB Length Miles: 4.2

Location O'Brien Road to Antler Bridge-NB Directional: Yes. NB.

PM Limit R36.0 / R40.2 **Exit #'s:** 695, 698, 702

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present:Four-lane freewayTwenty-Year:Four-lane freewayLong Range:Four-lane freeway

Future Design Concept

Design Speed: 50-80 mph

Clear Recovery: 30 ft

Typical Section: 4 lanes with climbing lane. 12-ft

lane width; 5-ft inside shoulder;

10-ft outside shoulder

Concept LOS

Yes

C/D

Current Highway Information

Median Barrier:

Peak Hour Factor: 0.88 Climbing Lane (s): Yes. R37.3/R38.7

Number of Lanes: 4

Terrain:MountainousLane Width:12 ftGrade:5.0% (6.5% max)In/Outside Shoulder:5 ft/10 ftPercent Trucks:27%Posted Speed:65 mph

Percent RVs: 2%

K factor: 0.12 Median Width: 4-58 ft

Interchange Density: 0.17

Median Type: Paved Concrete Barrier

Directional Split: 54% (North)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	10600	1300	22.4	С	
2010	12400	1500	26.1	D	
2015	13900	1700	30.1	D	
2020	15400	1800	35.7	E	
2025	16900	2000	38.3	Е	С
2030	18400	2200	39.9	Е	С

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

¹Operational project(s) identified in this segment-see "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.



Segment Description

This NB freeway segment begins at Bridge Bay Road Interchange and ends at Antler Bridge. The segment contains one rural interchange at Gilman Road. Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 25% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Five structures exist in this segment. One of the structures is the Antler Bridge built in 1941 by the Bureau of Reclamation. There is the Salt Creek Sandhouse at PM R37.5. There is a climbing lane at PM R37.3/R38.7. The median is paved with a concrete barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. Gilman Road offers Hirz Bay Campground and Trail and boat ramps at Hirz Bay and Bailey Cove. Development along I-5 in this segment is limited due to extensive federal and state lands, rough topography, and limited availability of water. Future development is expected to continue to be limited.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Improve Antler Bridge and add southbound truck climbing lane by 2020. The bridge plans to have two northbound lanes and three southbound lanes, one of which is an extension of the existing truck-climbing lane that begins at the south end of the bridge. The truck climbing lane will be extended north to the railroad overcrossing.). Extend northbound truck climbing lane. Improve traffic operations through ITS.

General Issues

Uphill grade in northbound direction. Curvilinear freeway segment because of traveling through the Sacramento River Canyon. High percentage of truck traffic limits maneuverability (creates rolling queues). Parallels Shasta Lake and contains Antler Bridge over the Sacramento arm of Shasta Lake. Antler Bridge is scheduled for replacement. The bridge is at or near the end of its service life. Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability.



I-5 Project Sheet Segment 27 NB-O'Brien to Antlers Bridge (Shasta PM R36.0/R40.2)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						
Gilman Median Barrier	Safety	SHA R34.2/R51.8	2003	SHOPP	\$8,932,000	Caltrans
Collision reduction.						

In-Progress

Antlers Bridge Replacement	Replace Bridge	SHA RR39.0/R41.2	2017	SHOPP	\$190,000,000	Caltrans	
Replace bridge and extend southbound truck climbing lane.							
Lakehead SRRA	ADA	SHA R43.1	2010	SHOPP	\$3,819,000	Caltrans	
Upgrade facility for ADA requirements.							

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans			
_	Systems								
Enhance traffic operations the	Enhance traffic operations through ITS-Various locations.								
Truck Climbing Lane	Operational Improvements	SHA R37.3/R38.7	2025	Ten-Year SHOPP	TBD	Caltrans			
Extend length of northbour	Extend length of northbound truck climbing lane located at SHA R37.3/R38.7.								
	•								
	•								

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA027SB Length Miles: 4.2

Location Antler Bridge to O'Brien Road-SB Directional: Yes. SB.

PM Limit R40.2 / R36.0 Exit #'s: 702, 698, 695

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present: Four-lane freeway Twenty-Year: Four-lane freeway Long Range: Four-lane freeway

Future Design Concept

Design Speed: 50-80 mph

30 ft **Clear Recovery:**

Typical Section: 4 lanes with climbing lane. 12-ft

lane width; 5-ft inside shoulder;

10-ft outside shoulder

Concept LOS

C/D

Current Highway Information

Yes. R39.016/R38.065 **Peak Hour Factor:** Climbing Lane (s): 88.0

4 Number of Lanes:

Lane Width: 12 ft Terrain: Rolling 5 ft/10 ft Grade: In/Outside Shoulder: N/A **Percent Trucks:** 27% 65 mph **Posted Speed:** Percent RVs: 2%

Median Barrier: Yes

K factor: 0.12 Median Width: 4-58 ft 0.17

Interchange Density: Median Type: Paved Concrete Barrier

Directional Split: 57% (South pm)

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	11200	1300	18.0	С	
2010	13100	1600	22.1	С	
2015	14600	1750	26.2	D	
2020	16300	1950	18.2	B ¹	
2025	17800	2100	21.2	C ¹	
2030	19400	2300	23.9	C ¹	

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

Year 2020 reflects completion of Antler Bridge Project. Project will replace bridge and add southbound truck climbing lane.



Segment Description

This SB freeway segment begins at Antler Bridge and ends at O'Brien Road. This segment has independent alignment. The segment contains one rural interchange at Gilman Road. Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 25% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Five structures exist in this segment. One of the structures is the Antler Bridge built in 1941 by the Bureau of Reclamation.. There is a climbing lane at PM R39.994/R38.948. The median is paved with a concrete barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. Development along I-5 in this segment is limited due to extensive federal and state lands, rough topography, and limited availability of water. Future development is expected to continue to be limited.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2015. Improve Antler Bridge and add southbound truck climbing lane. The bridge plans to have two northbound lanes and three southbound lanes, one of which is an extension of the existing truck-climbing lane that begins at the south end of the bridge. The truck climbing lane will be extended north to the railroad overcrossing. Extend southbound truck climbing lane. Improve traffic operations through ITS.

General Issues

Uphill grade in northbound direction. Curvilinear freeway segment because of traveling through the Sacramento River Canyon. High percentage of truck traffic limits maneuverability (creates rolling queues). Parallels Shasta Lake and contains Antler Bridge over the Sacramento arm of Shasta Lake. Antler Bridge is scheduled for replacement. The bridge is at or near the end of its service life. Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability.



I-5 Project Sheet Segment 27 SB-Antlers Bridge to Bridge Bay (Shasta PM R40.2/R36.0)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						
Gilman Median Barrier	Safety	SHA R34.2/R51.8	2003	SHOPP	\$8,932,000	Caltrans
Collision reduction.				•		

In-Progress

Antlers Bridge	Replace Bridge	SHA RR39.0/R41.2	2017	SHOPP	\$190,000,000	Caltrans	
Replacement							
Replace bridge and extend s	Replace bridge and extend southbound truck climbing lane.						

Future

Expand TMS	Transportation Management Systems	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans			
Enhance traffic operations through ITS-Various locations.									
Truck Climbing Lanes	Operational Improvements	SHA R36.787/R34.202							
Extend length of southboun	d truck climbing lane at R36.787.								
	·								

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA028NB Length Miles: 26.8

Location Antler Bridge to Shasta/Siskiyou County Line-NB Directional: Yes. NB.

PM Limit R40.2 / R67.0 Exit #'s: 702, 704, 707, 710, 712, 714, 718, 720, 721, 723, 724, 726, 727, 728

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present:Four-lane freewayTwenty-Year:Four-lane freewayLong Range:Four-lane freeway

Future Design Concept

Design Speed: 50-80 mph

Clear Recovery: 30 ft

Typical Section: 4 lanes with climbing lane. 12-ft

lane width; 5-ft inside shoulder;

10-ft outside shoulder

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.88 Climbing Lane (s): Yes. R49.213/R49.754

Number of Lanes: 4

Terrain: Mountainous Lane Width: 12 ft

Grade: 5.0% In/Outside Shoulder: 5 ft/10 ft

Percent Trucks: 27% Posted Speed: 65 mph (curve warnings)

Percent RVs: 2% Median Barrier: Yes

K factor: 0.12 Median Width: 4-99 ft

Interchange Density: 0.48

Median Type: Paved; Unpaved; Separate
Directional Split: 54% (North pm) Structures; Separate

Structures; Separate Grades; Sawtooth

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	10500	1300	25.0	С	
2010	11700	1400	28.0	D	
2015	13200	1600	32.1	D	
2020	14700	1800	37.9	Е	
2025	16000	1900	44.6	Е	С
2030	17500	2100	49.5	F	D

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

¹Operational project(s) identified in this segment-see "Segment Improvements" and "Project Sheets" on following pages. Year of Improved LOS is based on priority order given in Table 10.

Segment Description



This NB freeway segment begins at Antler Bridge and ends at Shasta/Siskiyou County Line. The segment contains thirteen rural interchanges at Lakeshore Drive, Lakehead Drive, Vollmers Road, La Moine, Pollard Flat, Gibson Road, Sims Road, Flume Creek Road, Conant Road, Sweetbriar Avenue, Castella, Soda Creek Road, and Castle Crags Drive. Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 24% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Twenty-two structures exist in this segment. The Castella Vista Point (PM R62.49) is located in this segment. There are locations to put chains on in this segment. Gibson Maintenance Station with a sandhouse is in this segment (PM R52.9). There is a climbing lane at PM R49.213//R49.754. The median is paved with a concrete barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. The community of Lakehead has general commercial, camping, and two boat ramps. Pollard Flat and Castella have a small section of general commercial, and the rest of the communities have no services. The Castella Exit contains Castle Crags State Park with swimming and fishing in the Sacramento River, hiking in the back country, and a view of Mount Shasta. There are developed and undeveloped campsites. The park features 28 miles of hiking trails, including a 2.7 mile access trail to Castle Crags Wilderness, part of the Shasta-Trinity National Forest. The Pacific Crest Trail also passes through the park. Crag View Drive contains the Railroad Park Resort with antique rail cars. Development along I-5 in this segment is limited due to extensive federal and state lands, rough topography, and limited availability of water. Future development is expected to continue to be limited.

Traffic Projections

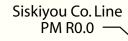
Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2010. Improve Antler Bridge and extend southbound truck climbing lane. The bridge will plans to have two northbound lanes and three southbound lanes, one of which is an extension of the existing truck-climbing lane that begins at the south end of the bridge. The truck climbing lane will be extended north to the railroad overcrossing. Extend northbound truck climbing lane. Improve traffic operations through ITS.

General Issues

Curvilinear freeway segment because of traveling through the Sacramento River Canyon. Multiple grade changes throughout segment. High percentage of truck traffic limits maneuverability (creates rolling queues). Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability. Deer and bear crossing.







Segment 28 Shasta County PM R40.2/R67.0 NB



I-5 Project Sheet Segment 28 NB-Antlers Bridge to Siskiyou County Line (Shasta PM R40.2/R67.0)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor	

In-Progress

Flume Creek CAPM	Roadway Preservation	SHA R58.0/R67.0	2007	SHOPP	\$19,400,000	Caltrans
Resurface asphalt concrete.						
Antlers Bridge	Replace Bridge	SHA RR39.0/R41.2	2017	SHOPP	\$190,000,000	Caltrans
Replacement						
Replace bridge and add sou	thbound truck climbing lane.					
Castella Vista Point	Upgrade Vista Point	SHA R 62.3	2009	STIP TE	\$243,000	Caltrans
Improve vista point.						
North Cottonwood (06-	Bridge Seismic Restoration	SHA R1.9, R30.6,	2011	SHOPP	\$10,600,000	Caltrans
0038L), Sweetbriar (06-		R61.8				
0115), and Tunnel Gulch						
Viaduct (06-0131R)						
SHA 5 seismic strengthening	g.					

Future

Enhance traffic operations through ITS-Various locations. Upper Canyon Pavement Focus Rehabilitate pavement. Castella Vista Point Upgrade Vista Point SHA R 62.3 SHOPP Improve vista point.	\$63,500,000	Caltrans
Upper Canyon Pavement Focus Roadway Rehabilitation SHA R44.0/R58.0 2011 SHOPP Rehabilitate pavement. Castella Vista Point Upgrade Vista Point SHA R 62.3 2009 SHOPP		Caltrans
Focus Rehabilitate pavement. Castella Vista Point Upgrade Vista Point SHA R 62.3 2009 SHOPP		Caltrans
Rehabilitate pavement. Castella Vista Point Upgrade Vista Point SHA R 62.3 2009 SHOPP		
Castella Vista Point Upgrade Vista Point SHA R 62.3 2009 SHOPP	1.	
Improve vista point	\$243,000	Caltrans
mprovo viola ponta		
Shasta Lake Viaduct and Bridge Seismic Restoration SHA R 45.5 2012 Ten-Year SHOPP	\$3,000,000	Caltrans
Dog Creek Bridge		
Bridge seismic restoration.		
Sidehill 06-0042L and Bridge Preservation SHA R29.72 and 2012 Ten-Year SHOPP	\$8,200,000	Caltrans
Dog Creek 06-0027 R45.54		
Seismic strengthening of bridges.		
Truck Climbing Lane Operational Improvements Between SHA 2025 Ten-Year SHOPP	TBD	Caltrans
R49.213/R49.754		
Extend northbound truck climbing lane located at SHA R49.213/R49.754.		

Date: June 2008

General Information

County: Shasta Route 5 Segment #: 005SHA028SB Length Miles: 26.8

Location Shasta/Siskiyou County Line to Antler Bridge-SB **Directional:** Yes. SB.

PM Limit R67.0 / R40.2 **Exit #'s:** 728, 726, 724, 723, 721, 720, 718, 714, 712, 710, 707, 705, 704, 702

System Designations

Functional Classification: Principal

Arterial/Interstate

Other Classifications:

National Highway System, Interregional Road System, Strategic Highway Network, Surface Transportation Assistance Act (National Network), High Emphasis Route, Freeway/Expressway, Corridor of the Future, Intermodal Corridor of Economic Significance, Lifeline Route, & Blue Star

Memorial

Bicycle Status: Allowed

Facility Concept

Present:Four-lane freewayTwenty-Year:Four-lane freewayLong Range:Four-lane freeway

Future Design Concept

Design Speed: 50-80 mph

Clear Recovery: 30 ft

Typical Section: 4 lanes with truck climbing

lane. 12-ft lane width; 5-ft inside shoulder; 10-ft outside

Concept LOS

C/D

Current Highway Information

Peak Hour Factor: 0.88 Climbing Lane (s): No

Number of Lanes: 4

Terrain: Level Lane Width: 12 ft

Grade: N/A In/Outside Shoulder: 5 ft/10 ft

Percent Trucks: 27% Posted Speed: 65 mph (curve warnings)

Percent RVs: 2% Median Barrier: Yes

K factor: 0.12 Median Width: 4-99 ft

Interchange Density: 0.48

Median Type: Paved; Unpaved; Separate
Directional Split: 51% South) Structures; Separate

Grades; Sawtooth

Year	AADT	Peak Hour	Density	LOS	Improved LOS ¹
2005	10000	1200	18.1	В	
2010	11100	1300	20.6	В	
2015	12400	1500	23.2	В	
2020	13900	1700	25.8	С	
2025	15100	1800	28.2	С	
2030	16500	2000	31.0	С	

Directional segment-Peak hour value and LOS shown may not be for the same hour for NB and SB in this segment.

¹No capacity-increasing projects identified for this segment.



Segment Description

This SB freeway segment begins at Shasta/Siskiyou County Line at ends at Antler Bridge. The segment contains thirteen rural interchanges at Lakeshore Drive, Lakehead Drive, Vollmers Road, La Moine, Pollard Flat, Gibson Road, Sims Road, Flume Creek Road, Conant Road, Sweetbriar Avenue, Castella, Soda Creek Road, and Castle Crags Drive. Travel on this section of the corridor is predominately longer interregional trips and goods movement (five-axle trucks 25% of AADT). Currently, the segment consists of a four-lane paved freeway with twelve-foot lanes, ten-foot outside paved shoulders, and five-foot inside shoulders. Twenty-two structures exist in this segment. The Lakehead Roadside Rest Area (PM R43.338) is located in this segment. The median is paved with a concrete barrier.

Parallel or Connecting Routes

Significant Land Uses

Segment in Shasta-Trinity National Forest. The community of Lakehead has general commercial, camping, and two boat ramps. Pollard Flat and Castella have a small section of general commercial, and the rest of the communities have no services. The Castella Exit contains Castle Crags State Park with swimming and fishing in the Sacramento River, hiking in the back country, and a view of Mount Shasta. There are developed and undeveloped campsites. The park features 28 miles of hiking trails, including a 2.7 mile access trail to Castle Crags Wilderness, part of the Shasta-Trinity National Forest. The Pacific Crest Trail also passes through the park. Crag View Drive contains the Railroad Park Resort with antique rail cars. Development along I-5 in this segment is limited due to extensive federal and state lands, rough topography, and limited availability of water. Future development is expected to continue to be limited.

Traffic Projections

Shasta Regional Transportation Planning Agency has a travel demand forecasting model. This model was updated January 2007 and used for all of Shasta County segments. The model provides traffic projections for every five years out to 2030.

Segment Improvements

Will exceed Concept LOS (C/D threshold) by 2025. Improve Antler Bridge and extend truck climbing lane (The bridge will plans to have two northbound lanes and three southbound lanes, one of which is an extension of the existing truck-climbing lane that begins at the south end of the bridge. The truck climbing lane will be extended north to the railroad overcrossing.) Improve traffic operations through ITS.

General Issues

Uphill grade in the northbound direction. High percentage of truck traffic limits maneuverability (creates rolling queues). Harsh winter conditions can cause the route to be closed or traffic maybe detoured. Few alternative routes and limited detours. Limited services available. Slope instability. Deer and bear crossing.





Segment 28 Shasta County PM R67.0/R40.2 SB



I-5 Project Sheet Segment 28 SB-Shasta/Siskiyou County Line to Antlers Bridge (Shasta PM R67.9/RR40.2)

Segment Projects/Improvements

Name	Туре	Location	Year	Program	Cost	Sponsor
Completed						
Gibson Maintenance	Maintenance Facilities	SHA R52.9	2005	SHOPP	\$2,365,000	Caltrans
Station						
Upgrade facility.	·					

In-Progress

Flume Creek CAPM	Roadway Preservation	SHA R58.0/R67.0	2007	SHOPP	\$19,400,000	Caltrans
Resurface asphalt concrete.						
Antlers Bridge	Replace Bridge	SHA RR39.0/R41.2	2017	SHOPP	\$190,000,000	Caltrans
Replacement						
Replace bridge and add sout	hbound truck climbing lane.					
Lakehead Median Barrier	Safety	SHA R43.1/R55.0	2003	SHOPP	\$5,602,000	Caltrans
Collision reduction.						
Lakehead Rehabilitation	Roadway Preservation	SHA R40.4/R44.4	2006	SHOPP	\$13,350,000	Caltrans
Rehabilitate roadway.						

Future

Expand TMS	Transportation Management	Various locations	2011	Ten-Year SHOPP	\$9,600,000	Caltrans
	Systems					
Enhance traffic operations the	ough ITS-Various locations.					
North Cottonwood,	Bridge Seismic Restoration	SHA R1.9, R30.6,	2011	SHOPP	\$10,600,000	Caltrans
Sweetbriar, and Tunnel	_	R61.8				
Gulch Viaduct						
SHA 5 seismic strengthening						
Upper Canyon Pavement	Roadway Rehabilitation	SHA R44.0/R58.0	2011	SHOPP	\$63,500,000	Caltrans
Focus						
Rehabilitate pavement.						
Seismic Retrofit-Shasta	Bridge Seismic Restoration	SHA R 45.5	2012	TEN-YEAR	\$3,000,000	Caltrans
Lake Viaduct and Dog	_			SHOPP		
Creek Bridge						
Bridge seismic restoration.				•	•	•
Sidehill 06-0042L, Tunnel	Bridge Preservation	SHA R29.72,	2012	Ten-Year SHOPP	\$8,200,000	Caltrans
Gulch 06-131R, Dog		R30.55, R45.54,				
Creek 06-0027,		R61.75				
Sweetbriar 06-115						
Seismic strengthening of brid	ges.	•	•	•	•	•